

Basavarajeswari Group of Institutions
BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT
(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

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Course Code

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Third Semester B.E. Degree Examinations, September/October 2024

OBJECT ORIENTED PROGRAMMING USING JAVA

(Common to CSE & AIML)

Duration: 3 hrs

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBTL:CO: PI)</u>
<u>MODULE – 1</u>			
1.	a. List and explain any five Java buzzwords.	06	(2 :1: 1.4.1)
	b. What is type casting? Illustrate with example.	06	(2 :1: 1.4.1)
	c. Write a program to display sum of digits of a number using while loop. (Hint: 1425 sum is 1+4+2+5)	08	(2 :1: 1.4.1)
OR			
2.	a. Briefly explain any six object-oriented programming features.	06	(2 :1: 1.4.1)
	b. Show how 1D and 2D arrays are created in Java with examples.	06	(2 :1: 2.5.2)
	c. Describe the following control construct with examples. (i) labelled break (ii) labelled continue	08	(2 :1: 2.5.2)
<u>MODULE – 2</u>			
3.	a. What is inheritance? Explain different types of inheritance supported in Java.	06	(2 :2: 2.5.2)
	b. What is the need of constructor in Java? Explain the types with suitable program.	06	(2 :2: 2.5.2)
	c. Write a program in Java if number is less than 10 and greater than 50 it generates the exception as out of range, else it displays the square of that number.	08	(3 :2: 2.5.2)
OR			
4.	a. Explain garbage collection in Java with example program.	06	(2 :2: 1.4.1)
	b. What are the different uses of super keyword?	06	(2 :2: 2.5.2)
	c. Write a Java program to demonstrate method overloading and method overriding.	08	(3 :2: 2.5.2)
<u>MODULE – 3</u>			
5.	a. What are packages? Explain the steps for package creation in Java.	06	(2 :3: 1.4.1)
	b. What are interfaces? Develop a simple program to implement interfaces.	06	(2 :3: 2.5.2)
	c. What are the different thread priority methods and write a program to demonstrate thread priorities in Java.	08	(3 :3: 3.6.2)
OR			
6.	a. Define a thread? List out the difference between multiprocessing and multithreading concepts.	06	(2 :3: 2.5.2)
	b. Discuss the different uses of synchronization in Java with example.	06	(2 :3: 2.5.2)

Note: (RBTL - Revised Bloom's Taxonomy Level: CO - Course Outcome: PI - Performance Indicator)

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| c. | Write a Java program to implement producer-consumer problem using thread. | 08 | (3 :3: 3.6.2) |
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MODULE – 4

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| 7. | a. | Explain the two key features of swings. | 06 | (2 :4: 2.5.2) |
| | b. | Explain any six-event listener interfaces with syntax. | 06 | (2 :4: 2.5.2) |
| | c. | Write a Java program that handles all mouse events and shows the event name at the center of the window when a mouse event is fired (Use adapter classes). | 08 | (3 :3: 3.6.2) |

OR

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| 8. | a. | What is an event? Explain the delegation event model. | 06 | (2 :4: 2.5.2) |
| | b. | Explain any six event classes with syntax. | 06 | (2 :4: 2.5.2) |
| | c. | Write a Java program that works as a simple calculator. Use a grid layout to arrange buttons for the digits and for the +, -, *, and % operations. Add a text field to display the result. Handle any possible exceptions like divide by zero. | 08 | (3 :4: 3.6.2) |

MODULE – 5

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| 9. | a. | Explain classification of JDBC drivers. | 06 | (2 :5: 2.5.2) |
| | b. | Brief out the steps in the JDBC Database connection. | 06 | (2 :5: 2.5.2) |
| | c. | Write a Java snippet to connect to a database using URL. | 08 | (3 :5: 3.6.2) |

OR

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| 10. | a. | Explain statement object and prepared statement objects. | 06 | (2 :5: 2.5.2) |
| | b. | What is a result set? Explain various types of scrollable result set. | 06 | (2 :5: 2.5.2) |
| | c. | Write a Java program that connects to a database using JDBC and does add, delete, modify and retrieve operations. | 08 | (3 :5: 3.6.2) |

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